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DYE SETS AND INK SETS FOR INK-JET INK IMAGING

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ABSTRACT OF THE DISCLOSURE

The present invention is drawn to dye sets for formulating ink-jet ink sets, and to specific ink sets. The dye set can comprise cyan colorant including a phthalocyanine dye; magenta colorant including a copper- or nickel-containing azo dye; and yellow colorant including at least one of Yellow 1189 dye and Yellow 104 dye yellow colorant having the structure Formula 1:

wherein R₁ is H, SO₃M, COOM, or SO₂NH₂; and wherein R₂ is H, SO₃M, COOM, or SO₂NH₂; and wherein R₃ is H or CH₃; and wherein n and m are 2, 3, 4, 5 or 6; and wherein M is H, Na, Li, K, ammonium, ammonium substituted with alkyl or combinations thereof. Optionally, a cyan triarylmethine dye such as Acid Blue 9, or another similar cyan dye, can be blended with the phthalocyanine dye; a rhodamine dye can be blended with the copper- or nickel- containing azo dye; and/or Acid Yellow 17 or Acid Yellow 23 can be blended with Formula 1.